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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/574,170
Filing Date: January 10, 2007
Appellant(s): BOZIONEK ET AL.

Ralph G. Fischer
Registration No. 55179
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 26, 2010 appealing from the Office action mailed April 20, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: Claims 24-29, 31-34, 44-52 and 54.

Claims 1-23, 30, 35-43 and 53 have been canceled.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except

for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

20040158644	Albuquerque et al.	8-2004
20030097443	Gillett et al.	5-2003
6222856	Krishnan et al.	4-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 24-29, 31, 32, 44-51 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2004/0158644 to Albuquerque et al. (hereinafter "Albuquerque").

2. **As to Claim 24,** Albuquerque discloses **a method for substantially real time transmission of a [software component] after receiving a demand [for the software component] from a requesting terminal of a network comprised of a server and a plurality of terminals, the requesting terminal being a terminal of the plurality of terminals, the method comprising:**

triggering a bandwidth test, the bandwidth test comprising sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop and receiving assembled data relating to the bandwidth available for each terminal (Paragraphs [0028] and [0029] of Albuquerque disclose a terminal wishing to reserve bandwidth for a given flow and sends a bandwidth reservation request message to the AP (access point) containing the desired bandwidth amount. The AP calculates if there is enough bandwidth available in the network. Paragraph [0066] discloses the invention is capable of verifying the bandwidth reservations in the event that the link speed is altered. The link speed is dictated in part by the quality of the link between the AP and the terminal, and/or between terminals because the quality of the link determined in part the highest speed at which data an/ore information can be transmitted over the link. Changes in the link speed are reported to the BM (bandwidth manager). The BM evaluates the flows on the link to verify that the flows are still able to be transmitted in the available time of the frame. In one embodiment, when the speed of a link changes, the BM reallocates bandwidth reservations for the flows on the link by releasing the previously allocated bandwidth reservations and reallocation the bandwidth reservations based on the new link speed and the flow priorities)**;**

prior to initiating transmission [of the software component], determining via the bandwidth test if a present bandwidth is sufficient for transmission [of the demanded software component] to the requesting terminal by identifying at least one lower priority process currently using bandwidth of the existing network that each has a lower priority than the demand and computing an amount of available bandwidth resources that is obtainable from reducing bandwidth resources assigned to the at least one lower priority

process (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Thus it is seen as computing an amount of obtainable bandwidth from lower priority flows. Figure 5),

if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit [the software component] to the requesting terminal, reducing or freezing the at least one lower priority processes and transmitting the software component to the requesting terminal (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Then if it determined that enough bandwidth can be freed up, the lower priority flows are released in order to free up the bandwidth needed to satisfy the request. Figure 5); **and**

if the computed amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit [the software component] to the requesting terminal, inhibiting or rejecting transmission [of the software component] (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or

rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected). Albuquerque does not explicitly disclose the demand being for a **software component**.

However, such a feature would have been obvious in view of Albuquerque. Paragraph [0021] of Albuquerque discloses the invention provides distributed admission control of network resources for the communication of substantially any type of data and information including, but not limited to, multimedia information, voice data, electronic information and substantially any other type of data and information. Accordingly it would be obvious to include software component in the list of information that could be communicated in Albuquerque. One or ordinary skill in the art would recognize software components as an obvious inclusion of the list of supported information types. It would be seen as simple substitution of one known element for another.

3. **As to Claim 25,** Albuquerque discloses **the method according to claim 24 wherein the amount of available bandwidth resources is also calculated according to a specified upper limit of a transmission time for transmitting the software component to the requesting terminal** (Paragraph [0043] of Albuquerque discloses the bandwidth manager calculating a number of packets to be transmitted per frame and a time needed to satisfy the request. Thus the bandwidth that is needed is based on the time needed to satisfy the request).

4. **As to Claim 26,** Albuquerque discloses **the method according to claim 25, wherein the amount of available bandwidth resources is available to the requesting terminal and is**

included in the demand (Paragraph [0028] of Albuquerque discloses when a terminal wishes to reserve bandwidth for a given flow, it sends a bandwidth reservation request message to the AP, containing the desired bandwidth amount)**.**

5. **As to Claim 27,** Albuquerque discloses **the method according to claim 26 wherein the server has access to the software component and the amount of available bandwidth resources** (Paragraph [0004] of Albuquerque discloses the data and other information are supplied to and from the terminals through the AP. Thus it is seen that the AP has access to the information being sent. Paragraph [0029] discloses the AP being able to calculate if there is enough bandwidth available in the network. Accordingly it is seen that it has access to the amount of available bandwidth resources)**.**

6. **As to Claim 28,** Albuquerque discloses **the method according to claim 27 wherein the bandwidth test provides a positive test result if the amount of available bandwidth resources is suitable for a real time application, or wherein the bandwidth test provides a positive test result if the amount of available resources is suitable for a substantially real time application** (Paragraph [0023] of Albuquerque discloses the invention supports at least two main classes of traffic, real-time and non-real-time traffic. Accordingly real-time traffic would have corresponding bandwidth requests and as such a positive result would necessitate that the amount of available bandwidth is suitable for that real-time traffic)**.**

7. **As to Claim 29,** Albuquerque discloses **the method according to claim 27 wherein information regarding the present bandwidth is made available by a network resource manager and is updated on request by the server or after a period of time** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network. Paragraph [0029] discloses the AP finding the bandwidth available in the network in response to a request and accordingly it is seen that the BM would update at least in response to a request)

8. **As to Claim 31,** Albuquerque discloses **the method according to claim 29 wherein if the amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit the software component, a message is sent to the requesting terminal, the message comprising a temporary rejection or a permanent rejection of the load request** (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected).

9. **As to Claim 32,** Albuquerque discloses **the method according to claim 31 further comprising displaying the message to a user of the requesting terminal** (Paragraph [0050] of Albuquerque disclose the sender of the flow is notified of the confirmation or rejection of the request).

10. **As to Claim 44,** Albuquerque discloses **the method of claim 24 wherein the amount of bandwidth necessary to transmit the software component is at least partially defined by a transmission rate requirement provided in the demand** (Paragraph [0043] of Albuquerque discloses the request includes the number of bytes per second requested).

11. **As to Claim 45,** Albuquerque discloses **the method of claim 44 wherein the amount of available bandwidth resources is calculated by a network resource manager that is connected to the server** (Paragraph [0033] of Albuquerque discloses the BM operating from the AP and, accordingly, is seen to be connected to the AP).

12. **As to Claim 46,** Albuquerque discloses **the method of claim 45 wherein the network resource manager is connected to an available bandwidth memory that has data on bandwidths assigned to processes using network bandwidth resources and priorities for these processes** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Figure 5 discloses the BM being able to identify current flows with lower priorities and as such it is seen to have a memory that has data on bandwidths assigned to flows and their priorities).

13. **As to Claim 47,** Albuquerque discloses **the method of claim 46 wherein the network resource manager is also connected to at least one of the terminals and wherein the available bandwidth memory is periodically updated with new data for the bandwidths assigned to processes using network bandwidth resources and priorities for these processes**

(Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Figure 5 discloses the BM being able to identify current flows with lower priorities and as such it is seen to have a memory that has data on bandwidths assigned to flows and their priorities. Since the BM can monitor the available bandwidth in the network it is seen to be able to be updated. Figure 2 disclose the BM being connected to the terminals).

14. **As to Claim 48,** Albuquerque discloses **the computer configured for connection to a plurality of terminals of a network and configured to transmit [a software component] to a requesting terminal of the plurality of terminals after receiving a demand [for the software component] from the requesting terminal if bandwidth necessary for transmitting [the software component] to the requesting terminal is determined to be available, the computer comprising:**

a network resource allocation device, the network resource allocation device configured to assign resources of the network to the terminals and reassign resources of the network from one terminal to another terminal (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows);

a performance characteristic providing device connected to the network resource allocation device (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows);

a network resource distribution memory connected to the network resource allocation device and the performance characteristic providing device, the network resource

distribution memory having stored data on bandwidths assigned to processes using bandwidth resources of the network and priorities for these processes (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Figure 5 discloses the BM being able to identify current flows with lower priorities and as such it is seen to have a memory that has data on bandwidths assigned to flows and their priorities);

a network resource test device connected to at least one of the network resource allocation device, the performance characteristic providing device, and the network resource distribution memory, the network resource test device configured to oversee a bandwidth test, the bandwidth test comprising sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop in a communication path between each terminal and the computer, and receiving assembled data relating to bandwidth available for each terminal via any associated part connections in each communication path (Paragraphs [0028] and [0029] of Albuquerque disclose a terminal wishing to reserve bandwidth for a given flow and sends a bandwidth reservation request message to the AP (access point) containing the desired bandwidth amount. The AP calculates if there is enough bandwidth available in the network. Paragraph [0066] discloses the invention is capable of verifying the bandwidth reservations in the event that the link speed is altered. The link speed is dictated in part by the quality of the link between the AP and the terminal, and/or between terminals because the quality of the link determined in part the highest speed at which data an/ore information can be transmitted over the link. Changes in the link speed are reported to the BM (bandwidth manager). The BM evaluates the flows on the link to verify that the flows

are still able to be transmitted in the available time of the frame. In one embodiment, when the speed of a link changes, the BM reallocates bandwidth reservations for the flows on the link by releasing the previously allocated bandwidth reservations and reallocation the bandwidth reservations based on the new link speed and the flow priorities);

the performance characteristic providing device configured to determine whether an amount of bandwidth exists that is sufficient for transmission [of the demanded software component] by accessing the data stored on the network resource distribution memory to identify at least one lower priority process using bandwidth of the network that each has a lower priority than the demand in the network and calculate an amount of available bandwidth resources that is obtainable from reducing bandwidth resources of the network assigned to the at least one lower priority process (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Thus it is seen as computing an amount of obtainable bandwidth from lower priority flows. Figure 5); **and**

the network resource allocation device configured to reduce or freeze the network resources assigned to the at least one lower priority processes and transmit [the software component] to the requesting terminal if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit the

software component to the requesting terminal (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Then if it determined that enough bandwidth can be freed up, the lower priority flows are released in order to free up the bandwidth needed to satisfy the request. Figure 5)**; and**

the network resource allocation device configured to inhibit or reject transmission [of the software component] if the computed amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit the software component to the requesting terminal (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected)**.**

Albuquerque does not explicitly disclose the demand being for a **software component**.

However, such a feature would have been obvious in view of Albuquerque. Paragraph [0021] of Albuquerque discloses the invention provides distributed admission control of network resources for the communication of substantially any type of data and information including, but not limited to, multimedia information, voice data, electronic information and substantially any other type of data and information. Accordingly it would be obvious to include software component in the list of information that could be communicated in Albuquerque. One or

ordinary skill in the art would recognize software components as an obvious inclusion of the list of supported information types. It would be seen as simple substitution of one known element for another.

15. **As to Claim 49,** Albuquerque discloses **the computer of claim 48 wherein the computer is a server or is comprised of a server** (Paragraph [0006] of Albuquerque discloses that admission to all traffic coming into or though the network is controlled by the AP. As such it is at least seen to be a network server in that it aides in routing management)**.**

16. **As to Claim 50,** Albuquerque discloses **the computer of claim 48 wherein bandwidth demand data is also stored in the network resource distribution memory** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows. Since the BM is able to reserve bandwidth for flows according to requests it is seen that it would also have access to demand data)**.**

17. **As to Claim 51,** Albuquerque discloses **the computer of claim 48 wherein the performance characteristic providing device is a portion of the network resource allocation device** (Paragraph [0033] of Albuquerque discloses the BM monitors the available bandwidth in the network and reserves bit rate bandwidths for flows)**.**

18. **As to Claim 54,** Albuquerque discloses **a method for substantially real time transmission of a [software component] after receiving a demand [for the software**

component] from a requesting terminal of a network comprised of a server and a plurality of terminals, the requesting terminal being a terminal of the plurality of terminals, the method comprising:

triggering a bandwidth test (Paragraphs [0028] and [0029] of Albuquerque disclose a terminal wishing to reserve bandwidth for a given flow and sends a bandwidth reservation request message to the AP (access point) containing the desired bandwidth amount. The AP calculates if there is enough bandwidth available in the network);

prior to initiating transmission [of the software component], determining via the bandwidth test if a present bandwidth is sufficient for transmission [of the software component] to the requesting terminal by identifying at least one lower priority process currently using bandwidth of the existing network that each has a lower priority than the demand and computing an amount of available bandwidth resources that is obtainable from reducing bandwidth resources assigned to the at least one lower priority process (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0044] discloses when low priority flows are dropped loosing their reserved bandwidth they can transmit on best-effort mode obtaining bandwidth when available. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Thus it is seen as computing an amount of obtainable bandwidth from lower priority flows. Figure 5),

if the computed amount of available bandwidth resources is equal to or greater than an amount of bandwidth necessary to transmit [the software component] to the requesting terminal, reducing the at least one lower priority process such that the at least one lower priority process is still able to utilize some bandwidth, and transmitting the software component to the requesting terminal (Paragraphs [0046]-[0049] of Albuquerque disclose locating a flow with reserved bandwidth that has the lowest priority of the flows having reserved bandwidth. If this flows priority is lower than the requested flows priority the BM (bandwidth manager) can release the bandwidth allocated to that lowest priority flow. Paragraph [0049] explains that in one embodiment, the bandwidths for the flows are not released until it is determined that a sufficient amount of packets can be made available to satisfy the request. Then if it determined that enough bandwidth can be freed up, the lower priority flows are released in order to free up the bandwidth needed to satisfy the request. Paragraph [0054] and Table 3 disclose the flows are given a maximum allocation as well as a base allocation. Paragraph [0056] explains that the allocated bandwidth is slightly higher than the requested bandwidth to allow for temporary vacations in the bite rate of the flow. Accordingly it is seen that the system is capable of reducing flows to a base allocation as opposed to a maximum. Figure 5)**; and if the computed amount of available bandwidth resources is less than the amount of bandwidth necessary to transmit [the software component] to the requesting terminal, inhibiting or rejecting transmission of [the software component]** (Paragraph [0050] of Albuquerque discloses generating and forwarding the bandwidth request confirmation or rejection. Wherein it is seen in Figure 5 that if not enough is bandwidth is able to be freed up no reservation of bandwidth is made, and accordingly the request has been rejected),

Albuquerque does not explicitly disclose the demand being for a **software component**.

However, such a feature would have been obvious in view of Albuquerque. Paragraph [0021] of Albuquerque discloses the invention provides distributed admission control of network resources for the communication of substantially any type of data and information including, but not limited to, multimedia information, voice data, electronic information and substantially any other type of data and information. Accordingly it would be obvious to include software component in the list of information that could be communicated in Albuquerque. One or ordinary skill in the art would recognize software components as an obvious inclusion of the list of supported information types. It would be seen as simple substitution of one known element for another.

19. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view of US Pub. No. 2003/0097443 to Gillett et al. (hereinafter "Gillett").

20. **As to Claim 33,** Albuquerque discloses **the method according to claim 31.** Albuquerque does not explicitly disclose **further comprising generating a load request in response to the temporary rejection of the load request.**

However, Gillett discloses this. Paragraph [0059] of Gillett discloses if the edge server lacks sufficient capability to service the request at the required level of performance, the manager may reject or redirect the request. Redirecting the request is seen to be generating a load request in response to the temporary rejection.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of claim 31 as disclosed by Albuquerque, with redirecting a response as disclosed by Gillett. One of ordinary skill in the art would have been motivated to combine to apply a known technique to a known device ready for improvement. Both systems deal with rejecting requests according to measuring current capabilities, as such it would be obvious to apply techniques used in one on the other. In this situation redirecting requests is well known in the art to improve service for clients by attempting to check capabilities at more than one server to improve the chances that the request will be accepted. Accordingly it would be obvious to implement in Albuquerque to improve request acceptance.

21. **As to Claim 34,** Albuquerque discloses **the method according to claim 31.** Albuquerque does not explicitly disclose **wherein the permanent rejection is generated after a plurality of temporary rejections have been generated for a load request for the software component or after determining that the amount of bandwidth necessary to transmit the software component is greater than a maximum available bandwidth.**

However, Gillett discloses this. Paragraph [0059] of Gillet discloses the service level manager may redirect the request to another server. This process may continue until the request is directed to a server having sufficient capacity to handle the request or until some other condition arises that results in the termination of the request. Thus it is seen that after a plurality of temporary rejections have been generated (multiple redirections) the request will either be handled or rejected.

Examiner recites the same rationale to combine used in claim 33.

22. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view of US Pat. No. 6222856 to Krishnan et al. (hereinafter "Krishnan").

23. **As to Claim 52,** Albuquerque discloses **the computer of claim 48.** Albuquerque does not explicitly disclose **wherein the network resource allocation device is also configured to periodically update the data stored in the network resource distribution memory.**

However, Krishnan discloses this. Column 3 lines 30-45 of Krishnan disclose the bandwidth throttling system periodically updates the measured bandwidth parameter in the BT (bandwidth throttling) objects. During the periodic update, the bandwidth throttling system only updates the bandwidth measurements for the BT objects on the active list.

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of claim 48 as disclosed by Albuquerque, with periodically updating the bandwidth data as disclosed by Krishnan. One of ordinary skill in the art would have been motivated to combine to identify whether any activity has occurred during a past period of preset duration (Column 10 line 59 - column 11 line 5 of Krishnan). Furthermore it is seen as applying a known technique to a similar device.

(10) Response to Argument

The examiner summarizes the various points raised by the appellant and addresses replies individually.

As per appellant's argument that:

(1) Regarding the rejection of claims 24-29, 31, 32, 44-51 and 54 under 35 U.S.C. 103(a) as being unpatentable over US Pub. No. 2004/0158644 to Albuquerque et al. (hereinafter "Albuquerque"), appellant argues that Albuquerque only teaches a computation of available bandwidth by a bandwidth a manager overseeing a particular private network. The bandwidth manager taught by Albuquerque would fail whenever other networks are traversed, such as the internet, because without a test there would be no information about available bandwidth from these other networks. Examiner disagrees. (Page 11 of Appeal Brief)

Firstly, it does not appear that there is any requirement in the claims that the invention must work when traversing other networks. However, paragraph [0025] of Albuquerque discloses the network 150 is configured to provide communication between the AP 152 and the terminals 154a-g. Communication between the AP and the terminals is performed over links 156. The links can be established through substantially any type of communication channel including the Internet. Accordingly, since the links between the terminals are disclosed to be over the internet and the measurements of Albuquerque are performed on these links, it is seen that Albuquerque would not fail when traversing the internet.

(2) Regarding the rejection of claims 24-29, 31, 32, 44-51 and 54 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque, appellant argues no portion of Albuquerque or any other cited art teaches or suggests sending a bandwidth request to each terminal, registering a bandwidth of an associated part connection after each hop, nor receiving assembled data relating to bandwidth available for each terminal. Appellant argues that the examiner is improperly using appellant's disclosure to read into Albuquerque in concluding that since Albuquerque is able to

determine link speed it is able to perform bandwidth tests. Appellant states Albuquerque suggests continuous monitoring, not testing. As such it is improper for the examiner to conclude that Albuquerque teaches or suggests a bandwidth test from a disclosure that merely recites monitoring of link speeds. Examiner disagrees. (Page 12 of Appeal Brief)

Paragraph [0066] of Albuquerque discloses the invention is capable of verifying the bandwidth reservations in the event that the link speed is altered. The link speed is dictated in part by the quality of the link between the AP and the terminal, and/or between terminals because the quality of the link determines in part the highest speed at which data and/or information can be transmitted over the link. Changes in the link speed are reported to the BM (bandwidth manager). The BM evaluates the flows on the link to verify that the flows are still able to be transmitted in the available time of the frame. In one embodiment, when the speed of a link changes, the BM reallocates bandwidth reservations for the flows on the link by releasing the previously allocated bandwidth reservations and reallocation the bandwidth reservations based on the new link speed and the flow priorities. As such it is seen that Albuquerque is able to identify the link speed between the AP and the terminal, and/or between terminals. Accordingly since it is able to identify the link speed it is seen to do perform bandwidth tests.

Appellant states that Albuquerque suggests continuous monitoring and not testing. Firstly, examiner does not concede that Albuquerque suggests continuous monitoring. However, even if Albuquerque does suggest continuous monitoring the link is nonetheless being tested to identify the link speed. The link's speed is being reported to the BM and accordingly the link is being tested to identify that link speed. Even if this were to occur continuously for monitoring

purposes, the link is still being tested. Accordingly it is seen that Albuquerque discloses the bandwidth test.

(3) Regarding the rejection of claims 24-29, 31, 32, 44-51 and 54 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque, appellant argues that Albuquerque does not disclose bandwidth requests being sent to any terminals. Instead, bandwidth requests are transmitted by terminals to an access point. Examiner disagrees. (Pages 12-13 of Appeal Brief)

Paragraph [0032] of Albuquerque discloses the AC (admission control) system determines link speed, and since it is determining the link speeds it is seen that it would be the one sending out requests to determine bandwidth. It appears that the term "bandwidth request" may be adding to the confusion, while terminals in Albuquerque do send "bandwidth reservations requests" to the AP to try to reserve bandwidth, this should not be confused with appellants "bandwidth requests" which are used to measure bandwidth. Thus it appears that appellant is arguing the "bandwidth reservations requests" are going from the terminals to the AP, however these are not what are being mapped to the requests. Rather, as stated above the AC systems ability to determine the link speed is what is being mapped to being able to perform bandwidth tests and correspondingly their associated bandwidth requests for the testing.

(4) Regarding the rejection of claims 24-29, 31, 32, 44-51 and 54 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque, appellant argues Albuquerque does not disclose or suggest bandwidths of associated part connections being registered after each hop. Examiner disagrees. (Page 13 of Appeal Brief)

Paragraph [0032] of Albuquerque discloses the AC system determines link speed and this is seen to be done for the entire network. Accordingly since all connection are determined then all connections after each hop are registered.

(5) Regarding the rejection of claims 24-29, 31, 32, 44-51 and 54 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque, appellant argues Albuquerque does not disclose assembly of data relating to bandwidths available to each terminal. Examiner disagrees. (Page 14 of Appeal Brief)

Paragraph [0032] of Albuquerque discloses the AC system provides for communication control over the links as well as determining the link speed. Accordingly it is seen that the AC system considers the network as a whole since the AC system provides communication control over all the links as well as determining their link speeds. As such the AC system has assembled data relating to bandwidths available to each terminal in order to properly provide communication control over all the links.

(6) Regarding the rejection of claims 48-52 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque, appellant argues the cited art does not teach or suggest a network resource test device as required by claims 48-52. As discussed above with reference to claim 24, none of the cited art teaches or suggests any running of any bandwidth test. Nor does the cited art teach or suggest a network resource test device configured to oversee such a tests or a bandwidth test that includes registering a bandwidth of an associated part connection after each hop in a communication path between each terminals and the computer, and receiving assembled data

relating to bandwidth available for each terminal via the associated part connections in each communication path. Examiner disagrees. (Page 14 of Appeal Brief)

These arguments are similar to those presented in arguments (1)-(5) above and as such are addressed using the same rationale provided in response to arguments (1)-(5).

(7) Regarding the rejection of claim 54 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque, appellant argues none of the cited art teaches a reduction of a lower priority process such that the one or more lower priority processes are still operational. Appellant argues that Albuquerque teaches away because one disclosed embodiment discloses removing all the previously assigned bandwidth. Appellant further argues that the "best effort mode" discloses that "bandwidth is not reserve for the flow" and that the flow is not permitted to use any portion of the bandwidth that was previously assigned to it as required by claim 54. Examiner disagrees. (Pages 14-16 of Appeal Brief)

Paragraph [0044] of Albuquerque discloses low priority flows may be completely dropped losing their reserved bandwidth to higher priority flows and have to resubmit bandwidth requests or to transmit on a best-effort mode obtaining bandwidth when available. Best effort mode can be used for computer data traffic. Thus it is seen that these lower priority flows have been assigned to best effort and are accordingly still operational since best effort mode can be used for computer data traffic.

As such, Albuquerque does not teach away because it discloses an embodiment where the flow is still operational under best effort mode.

As to appellants assertion that "the flow is not permitted to use any portion of the bandwidth that was previously assigned to it as required by claim 54" this does not appear to be the case. There is no requirement that the flow must be permitted to use previously assigned bandwidth, the claim states "reducing the at least one lower priority process such that the at least one lower priority process is still able to utilize some bandwidth." Thus there is only a requirement that the lower priority process still be able to utilize some bandwidth. It is seen that the disclosed "best effort mode" fulfills this criteria. Paragraph [0044] discloses when flows transmit on a best effort mode, bandwidth is not reserved for the flow, and data is only transmitted when the network bandwidth is not being used by other terminals. Thus it is clearly seen that a flow on best effort mode is still able to utilize some bandwidth when the bandwidth is not being used by other terminals. The claim does not require this bandwidth to be part of the previously assigned bandwidth; it only requires that the process still be able to utilize some bandwidth.

(8) Regarding the rejection of claims 33 and 34 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view of US Pub. No. 2003/0097443 to Gillett et al. (hereinafter "Gillett"), appellant argues the claims are at least allowable because the claims from which they depend are allowable. Examiner disagrees. (Page 16 of Appeal Brief)

Arguments (1)-(5) addressed the claims upon which claims 33 and 34 depend and as such claims 33 and 34 are addressed using the same rationale provided in response to arguments (1)-(5).

(9) Regarding the rejection of claims 33 and 34 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view Gillett, appellant argues Gillett does not disclose a temporary rejection nor any generation of a load request in response to a temporary rejection. Examiner disagrees. (Pages 16 and 17 of Appeal Brief)

The rejections of claims 33 and 34 are made in view of both Albuquerque and Gillett and as such both references need to be considered. In response to the argument that Gillett does not disclose sending a rejection to the terminal it is seen that Albuquerque was mapped to address this feature in claim 31. This in combination with Gillett's disclosure is seen to be a temporary rejection since Gillett discloses attempting another load request for the service. Thus the service is not completely rejected since it is awaiting the response to the redirected load request, or rather it has been temporarily rejected pending a response. When the request is redirected it is seen that the manager of Gillett must generate this request and accordingly the load request is generated in response to the decision to redirect. Then as seen above the redirect in combination with Albuquerque is a temporary rejection. Thus it is seen that the combination of Albuquerque and Gillett discloses a temporary rejection and generation of a load request in response to a temporary rejection.

(10) Regarding the rejection of claims 33 and 34 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view Gillett, appellant argues that Gillett does not disclose a plurality of temporary rejections being issued and accordingly does not disclose a permanent rejection in response to the temporary rejections. Examiner disagrees. (Pages 17 and 18 of Appeal Brief)

The rejections of claims 33 and 34 are made in view of both Albuquerque and Gillett and as such both references need to be considered. In response to the argument that Gillett does not disclose sending a rejection to the terminal it is seen that Albuquerque was mapped to address this feature in claim 31. This in combination with Gillett's disclosure is seen to be a temporary rejection since Gillett discloses attempting another load request for the service. Thus the service is not completely rejected since it is awaiting the response to the redirected load request, or rather it has been temporarily rejected pending a response. When the request is redirected it is seen that the manager of Gillett must generate this request and accordingly the load request is generated in response to the decision to redirect. Then as seen above the redirect in combination with Albuquerque is a temporary rejection. Thus it is seen that the combination of Albuquerque and Gillett discloses a temporary rejection and generation of a load request in response to a temporary rejection.

Additionally, paragraph [0059] of Gillett discloses the service level manager may redirect the request to another server. This process may continue until the request is directed to a server having sufficient capacity to handle the request or until some other condition arises that results in the termination of the request. Thus it is seen that after a plurality of temporary rejections have been generated (multiple redirections) the request will either be handled or rejected. Thus, as argued above, the redirects in combination with Albuquerque are temporary rejections, and in view of the process being repeated it is seen that multiple temporary rejections are sent. This can then culminate in the termination of the request and as such a permanent rejection is generated after a plurality of temporary rejections have been generated.

(11) Regarding the rejection of claim 52 under 35 U.S.C. 103(a) as being unpatentable over Albuquerque and further in view of US Pat. No. 6222856 to Krishnan et al. (hereinafter "Krishnan"), appellant argues the claim 52 is at least allowable because the claim from which it depends is allowable. Examiner disagrees. (Page 18 of Appeal Brief)

Arguments (1)-(5) address the claim upon which claim 52 depends and as such claim 52 is addressed using the same rationale provided in response to arguments (1)-(5).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/K. S. M./

Examiner, Art Unit 2456

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